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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/041,550	03/12/1998	DAVID ELBERAUM	ELBX14852	3432

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EXAMINER

YENKE, BRIAN P

ART UNIT	PAPER NUMBER
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2614

DATE MAILED: 06/15/2004

7

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/041,550

Applicant(s)

ELBERAUM, DAVID

Examiner

BRIAN P. YENKE

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Election (25 March 2004).
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-241 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-241 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. The examiner has withdrawn the election of species requirement based upon the applicant's statement that Figures 1A/B/C/D/E are all identical species.

Drawings

2. The amended drawings filed on 25 April 2004 have been received. These drawings are approved by the examiner.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-241 are rejected under 35 U.S.C. 103(a) as being unpatentable over Elberbaum US 5,592,321.

In considering claims 1, 11, 13, 22 and 31

a) *the claimed transmitting a pulse signal...* is met by transmitting apparatus 12 (Fig 1)/transmitter 48 (Fig 2) which transmits a pulse signal to the receiver 26 (Fig 1)/54 (Fig 2), where the voltage level of the pulse signal has a higher voltage level than the

maximum voltage level of the video signal or a lower than the minimum voltage level of the video signal (col 3, line 27-49).

b) the claimed separating said pulse signal... is met where each video signal generating means includes a level comparator circuit for extracting the external synchronizing signal by comparing the signal level of the external synchronizing signal pulse signal with a reference signal having a predetermined voltage and feeds the extracted external synchronizing to the internal sync signal generation circuit (col 3, line 37-44).

However, Elberbaum does not explicitly recite converting the separated pulse signal into an optical signal, nor the recitation of bi-directional signals.

Elberbaum discloses the use optical signals where the receiver and transmitter can convert a received optical signal into an electrical signal (col 7, line 45-56 and col 16, line 40-48).

Thus the question of obviousness is whether the conversion of an electrical signal to an optical signal is obvious over the conversion of a optical signal to an electrical signal, and also the use of bi-directional fiber optical cables.

The examiner's relies on the applicant's response to the Election of Species, where the applicant states that Figures 1a/b/c/d/e are all identical species. Since the variations in the figures pertains to the exclusive use of fiber optics (Figures 1d/e (top)) or the use of fiber optics only along a portion of the path from the camera to the receiver, the examiner's position is the conversion of electrical to optical and vice versa is conventional in the art, where no unexpected results are obtained by performing either conversion.

The use of fiber optics to communication between a transmitter and a receiver over the same communication link is notoriously well known. Thus examiner takes OFFICIAL NOTICE regarding the use of fiber optic cables which allow bi-directional communication.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Elberbaum which discloses the use of electrical and optical signals, by transmitting/receiving both electrical and optical signals using a bi-directional cable, where the signals are based upon the type of transmission/reception method used (i.e. cable, optical fiber).

In considering claims 2, 12, 23, 32, 41, 51, 60, 70, 80, 90, 100, 110, 119, 128, 148, 158, 167, 203, 208, 215, 223, 228 and 235

The claimed removing said pulse signal from said information signal...is met by sync pulse clipping circuit 62 which is provided for clipping the sync pulse P1 from a signal fed from the video signal transmission line 58 and pass through the clipping circuit 62 by using the timing signal P2 to clip the pulse P1 and feed a video signal containing no sync pulse P1 to driver 64 (col 9k line 45-60).

In considering claims 3, 14, 24, 33, 42, 52, 61, 71, 81, 91, 101, 111, 120, 129, 149, 159, 168, 177, 186, 194, 204, 209, 216, 224, 229 and 236

The claimed wherein said information signal is a composite video signal or a digital video signal is met where Elberbaum discloses the use of a composite video signal .

In considering claims 4, 15, 43, 62, 72, 82, 92, 102, 112, 130, 150, 160, 169, 178, 195, 205, 217, 225 and 237

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The claimed wherein said pulse signal is opposite in polarity to an internal sync signal... is met where Elberbaum describes via US 4,603,352 that the sync signal is opposite polarity to the information signal.

In considering claims 5, 16, 25, 34, 44, 53, 63, 73, 83, 93, 103, 113, 121, 131, 151, 170, 179, 183, 187, 196, 200, 206, 210, 213, 218, 221, 226, 230, 233, 238 and 241 *The claimed wherein said information signal is mixed with an audio signal* is met where Elberbaum discloses that each transmitting means preferably includes a signal mixing means for generating a mixed signal composed of a video signal and an audio signal (col 4, line 18-25).

In considering claims 6-10 and 17-21, 26-30, 35-39, 45-49, 54-58, 64-68, 74-78, 84-88, 94-98, 104-108, 114-117, 122-126, 132-136, 142-146, 152-156, 161-165, 171-175, 180-182, 184, 188-192, 197-199, 201, 211-212, 219-220, 231-232 and 239-240 *The claimed wherein said information signal contains an identification signal pertaining to said transmitter* is met by Elberbaum which discloses that each video signal generating means further includes an identification code generation circuit for generating an identification code signal corresponding to an identification number which identifies the video generating means transmitting the video signal (col 3, line 59-67 and col 4, line 1-17). The apparatus also includes a control signal consisting of a coded control command combined with the identification code signal (col 4, line 38-44).

In considering claims 40, 50

a) the claimed transmitting a pulse signal... is met by transmitting apparatus 12 (Fig 1)/transmitter 48 (Fig 2) which transmits a pulse signal to the receiver 26 (Fig 1)/54 (Fig

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2), where the voltage level of the pulse signal has a higher voltage level than the maximum voltage level of the video signal or a lower than the minimum voltage level of the video signal (col 3, line 27-49).

b) the claimed separating said pulse signal... is met where each video signal generating means includes a level comparator circuit for extracting the external synchronizing signal by comparing the signal level of the external synchronizing signal pulse signal with a reference signal having a predetermined voltage and feeds the extracted external synchronizing to the internal sync signal generation circuit (col 3, line 37-44).

c) the claimed receiving and reconvertng said optical signal into a pulse signal is met by each transmitting means which further includes a light receiving element for converting the received control light signal into an electrical signal (col 5, line 13-18, col 3, line 37-44).

d) the claimed injecting said reconverted pulse signal into said second section of said transmission line is met where each transmitting means can feed the control signal to the video signal generating means by injecting the control signal into the video transmission line connecting the transmitting means to the video signal generating means or through a separate control transmission line.

However, Elberbaum does not explicitly recite converting the separated pulse signal into an optical signal, nor the recitation of bi-directional signals

For motivation/comments, refer to claim 1 above.

In considering claims 59, 69, 79

See rejection/motivation of claim 40 above. Regarding the two distinct signals, Elberbaum discloses the two signals which include a external sync pulse signal and a control signal consisting of a coded control command.

In considering claim 89, 99, 109, 118, 127, 137

See rejection/motivation of claim 1 above.

In considering claim 147, 157, 166, 176, 185, 193, 202, 207, 214, 222, 227 and 234

a) the claimed a fiber optic receiver is met by receiver 14 (Fig 1, 2, 9)

b) the claimed a fiber optic transmitter is met by transmitter 12(Fig 1)/TV camera 42 and transmitter 12 (Fig 2, 9)

the claimed fiber optic transmitter including;

d) the claimed a circuit for receiving a video signal is met by transmitter 48 which receives a video signal from TV camera 42 (Fig 2, 9)

e) the claimed a circuit for converting said received video signal into an optical signal is met where transmitter 48 receives the electrical video signal from TV camera 42 and via photoemissive element 50 and corresponding lens 20 is sent to the receiver via optical fiber 16 (Fig 2, 9).

f) the claimed a circuit for receiving optical control signal from said fiber optic receiver is met by 20 lens and light receiving element 146 (Fig 9)

g) the claimed a circuit for processing said electrical signal into said control signal is met by transmitting apparatus 12 (Fig 1,2 9)/transmitter 48 (Fig 2,9) which transmits a pulse signal to the receiver 26 (Fig 1)/54 (Fig 2)(col 3, line 27-49).

Said fiber optic receiver including:

- h) the claimed a circuit for receiving an optical video signal is met by liquid crystal panel 22 and lens 24 and receiving element 52 (Fig 9)*
- i) the claimed a circuit for processing said electrical signal is met where each receiver circuit includes an amplifier 114 (Fig 8/11) which receives the electrical signal which has been converted from the received optical signal, and generates a video signal via interface 116 onto monitor 118 or VTR 120 (Fig 11).*
- j) the claimed a circuit for retrieving is met where the receiver includes an ID code extracting circuit 124 (Fig 8) (col 14, line 5-17).*
- h) the claimed a circuit for processing said separated control signal is met by controller 126 (Fig 8)*
- i) the claimed a circuit for converting said processed control signal into an optical signal is met by driver 128 (Fig 11).*

Regarding the use of bi-directional fiber optic cables, refer to claim 1 above.

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Yenke whose telephone number is (703) 305-9871. The examiner work schedule is Monday-Thursday, 0730-1830 hrs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's Supervisor, John W. Miller, can be reached at (703)305-4795.

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or faxed to:

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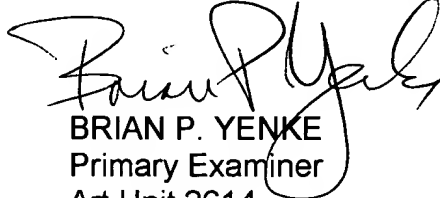
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also allows the submission of Computer Readable Format (CRF) sequence listings for pending biotechnology patent applications, which were filed in paper form.



BRIAN P. YENKE
Primary Examiner
Art Unit 2614



B.P.Y.

08 June 2004